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IBM CORPORATION
ROCHESTER IP LAW DEPT. 917
3605 HIGHWAY 52 NORTH
ROCHESTER, MN 55901-7829

EXAMINER	
HICKS, MICHAEL J	

ART UNIT	PAPER NUMBER
2165	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/691,295	BARSNESS ET AL.	
	Examiner	Art Unit	
	Michael J. Hicks	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 11-15 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

According to Applicants disclosure (Page 9, Lines 3-5), the signal bearing medium of 11-15 may comprise "information conveyed to an electronic device by a communications medium, such as through a computer or telephone network, e.g. the network 108, including wireless communications" e.g. a signal or transmission medium.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

First, a claimed signal is clearly not a "process" under Sec. 101 because it is not a series of steps. The other three Sec. 101 classes of machine, compositions of

matter and manufactures "relate to structural entities and can be grouped as `product' claims in order to contrast them with process claims." 1 D. Chisum, Patents Sec. 1.02 (1994). The three product classes have traditionally required physical structure or material.

"The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include electronic devices which perform functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine.

A "composition of matter" "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." Shell Development Co. v. Watson, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), aff'd, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958). A claimed signal is not matter, but a form of energy, and therefore is not a composition of matter.

The Supreme Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." Diamond v. Chakrabarty, 447 U.S. 303, 308,

206 USPQ 193, 196-97 (1980) (quoting American Fruit Growers, Inc. v. Brogdex Co., 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). Other courts have applied similar definitions. See American Disappearing Bed Co. v. Arnaelsteen, 182 F. 324, 325 (9th Cir. 1910), cert. denied, 220 U.S. 622 (1911). These definitions require physical substance, which a claimed signal does not have. Congress can be presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change. Lorillard v. Pons, 434 U.S. 575, 580 (1978). Thus, Congress must be presumed to have been aware of the interpretation of manufacture in American Fruit Growers when it passed the 1952 Patent Act.

A manufacture is also defined as the residual class of product. 1 Chisum, Sec. 1.02[3] (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)). A product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of Sec. 101.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-20 rejected under 35 U.S.C. 102(b) as being anticipated by Bowman et al. (U.S. Patent Number 6,006,0225 and referred to hereinafter as Bowman).

As per Claim 1, Bowman teaches a method comprising: finding a correlation between a first statement and a previous statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query."* The preceding text excerpt clearly indicates a correlation is found between a first statement/present query and a previous query.) (Column 3, Lines 6-16); predicting a second statement based on the previous statement (i.e. *"Thus, assuming items have not been deleted from the database being searched, any of these related terms can be individually added to the present query while guaranteeing that the modified query will not produce a NULL query result."* The preceding text excerpt clearly indicates that a second query/statement is predicted (e.g. a modified version of the first query which it is predicted will be useful to the user is determined and presented).) (Column 3, Lines 16-20); and retrieving at least one page from a database based on the second statement (i.e. *"When the user clicks on one of these links, the corresponding modified query is submitted to the search engine. The method thus enables the user to select and submit the modified query with a single action (e.g., one click of a mouse). As an inherent benefit of the above-described method of generating the related terms, each such link produces as least one 'hit.'"* The preceding text excerpt clearly indicates that the second statement/modified

query is submitted to the search engine and will return at least one page/hit from the database.) (Column 14, Lines 6-12).

As per Claims 2, 8, 12, 13, 17, and 18 Bowman teaches retrieving the at least one page asynchronously from executing the first statement against the database (i.e. *"When the user clicks on one of these links, the corresponding modified query is submitted to the search engine. The method thus enables the user to select and submit the modified query with a single action (e.g., one click of a mouse). As an inherent benefit of the above-described method of generating the related terms, each such link produces as least one 'hit.'"* The preceding text excerpt clearly indicates that because the retrieving of the one page relies on a user interaction, it will be done asynchronously with the executing of the first statement.) (Column 14, Lines 6-12); and storing the at least one page in a cache (i.e. *"Further, the query server 132 could cache the list of items that fall within the subset, so that if the user submits the modified query (such as by clicking on the link "OUTDOOR BIKE--TRAIL" in FIG. 9), the query server could return the result of the modified search without having to search the bibliographic database. Special tags or codes could be embedded within the modified-query hyperlinks and passed to the web site 130 to enable the query server 132 to match the modified queries to the cached results."* The preceding text excerpt clearly indicates the returned page is stored in a cache.) (Column 14, Lines 36-45).

As per Claims 3, 10, and 15, Bowman teaches finding a host variable in a history that matches the host variable in the first statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query."* The preceding text excerpt clearly indicates that because the same database is being searched in

relation to the same information (e.g. identification of keyword terms) that the host variable will remain the same for the first statement/query and the stored statements/queries in the history/log.) (Column 3, Lines 6-16).

As per Claim 4, Bowman teaches the previous statement is stored in the history (i.e. *"In accordance with one aspect of the invention, the correlation data is stored in a correlation data structure (table, database, etc.) which is used to look up related terms in response to query submissions. The data structure is preferably generated using an off-line process which parses a query log file, but could alternatively be generated and updated in real-time as queries are received from users."* The preceding text excerpt clearly indicates that the previous statement is stored in a query log/history which is parsed to create correlation data.) (Column 2, Lines 47-53).

As per Claim 5, Bowman teaches finding the second statement in the history, wherein the second statement followed the previous statement in time (i.e. *"In accordance with one aspect of the invention, the correlation data is stored in a correlation data structure (table, database, etc.) which is used to look up related terms in response to query submissions. The data structure is preferably generated using an off-line process which parses a query log file, but could alternatively be generated and updated in real-time as queries are received from users."* The preceding text excerpt clearly indicates that when the second statement is submitted, it will be stored in the query log/history at a point after the previous statement.) (Column 2, Lines 47-53).

As per Claim 6, Bowman teaches and apparatus comprising: means for finding a correlation between a first statement and a previous statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between*

these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query." The preceding text excerpt clearly indicates a correlation is found between a first statement/present query and a previous query.) (Column 3, Lines 6-16), wherein the previous statement is stored in a history of a plurality of statements (i.e. *"In accordance with one aspect of the invention, the correlation data is stored in a correlation data structure (table, database, etc.) which is used to look up related terms in response to query submissions. The data structure is preferably generated using an off-line process which parses a query log file, but could alternatively be generated and updated in real-time as queries are received from users."* The preceding text excerpt clearly indicates that the previous statement is stored in a query log/history which is parsed to create correlation data.) (Column 2, Lines 47-53); means for predicting a second statement based on the previous statement (i.e. *"Thus, assuming items have not been deleted from the database being searched, any of these related terms can be individually added to the present query while guaranteeing that the modified query will not produce a NULL query result."* The preceding text excerpt clearly indicates that a second query/statement is predicted (e.g. a modified version of the first query which it is predicted will be useful to the user is determined and presented).) (Column 3, Lines 16-20); and means for retrieving at least one page from a database based on the second statement (i.e. *"When the user clicks on one of these links, the corresponding modified query is submitted to the search engine. The method thus enables the user to select and submit the modified query with a single action (e.g., one click of a mouse). As an inherent benefit of the above-described method of generating the related terms, each such link produces as least one 'hit.'"* The preceding text excerpt clearly indicates that the second statement/modified query is submitted to the search engine and will return at least one page/hit from the database.) (Column 14, Lines 6-12).

As per Claim 7, Bowman teaches means for saving the first statement in the history (i.e. *"In accordance with one aspect of the invention, the correlation data is stored in a correlation data structure (table, database, etc.) which is used to look up related terms in response to query submissions. The data*

structure is preferably generated using an off-line process which parses a query log file, but could alternatively be generated and updated in real-time as queries are received from users." The preceding text excerpt clearly indicates that the first statement is stored in the query log/history.) (Column 2, Lines 47-53).

As per Claims 9, 14, and 19, Bowman teaches means for executing a next statement against the cache (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query...When the user clicks on one of these links, the corresponding modified query is submitted to the search engine. The method thus enables the user to select and submit the modified query with a single action (e.g., one click of a mouse). As an inherent benefit of the above-described method of generating the related terms, each such link produces as least one 'hit.'"* The preceding text excerpt clearly indicates that a means for executing a next statement against the cache exists.) (Figure 9; Column 3, Lines 6-16; Column 14, Lines 6-12), wherein the next statement follows the first statement in time (i.e. The user controlled aspects of the invention make it possible for the next statement to follow the first statement in time.), and wherein a host variable in the next statement matches the host variable in the second statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query."* The preceding text excerpt clearly indicates that because the same database is being searched in relation to the same information (e.g. identification of keyword terms) that the host variable will remain the

same for the next statement/query and the stored/second statements/queries in the history/log.) (Column 3, Lines 6-16).

As per Claim 11, Bowman teaches a signal-bearing medium encoded with instructions, wherein the instructions when executed comprise: finding a correlation between a first statement and a previous statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query."* The preceding text excerpt clearly indicates a correlation is found between a first statement/present query and a previous query.) (Column 3, Lines 6-16), wherein the previous statement is stored in a history of a plurality of statements (i.e. *"In accordance with one aspect of the invention, the correlation data is stored in a correlation data structure (table, database, etc.) which is used to look up related terms in response to query submissions. The data structure is preferably generated using an off-line process which parses a query log file, but could alternatively be generated and updated in real-time as queries are received from users."* The preceding text excerpt clearly indicates that the previous statement is stored in a query log/history which is parsed to create correlation data.) (Column 2, Lines 47-53); predicting a second statement based on the previous statement (i.e. *"Thus, assuming items have not been deleted from the database being searched, any of these related terms can be individually added to the present query while guaranteeing that the modified query will not produce a NULL query result."* The preceding text excerpt clearly indicates that a second query/statement is predicted (e.g. a modified version of the first query which it is predicted will be useful to the user is determined and presented).) (Column 3, Lines 16-20); executing the first statement against a database (i.e. Figure 9 clearly indicates that the first statement is executed against the database and results from the first statement are returned (e.g. Top

Matches for This Search).) (Figure 9); and retrieving at least one page from the database based on the second statement (i.e. *"When the user clicks on one of these links, the corresponding modified query is submitted to the search engine. The method thus enables the user to select and submit the modified query with a single action (e.g., one click of a mouse). As an inherent benefit of the above-described method of generating the related terms, each such link produces as least one 'hit.'"* The preceding text excerpt clearly indicates that the second statement/modified query is submitted to the search engine and will return at least one page/hit from the database.) (Column 14, Lines 6-12).

As per Claim 16, Bowman teaches a server comprising: a processor and a storage device encoded with instructions, wherein the instructions when executed on the processor comprise: finding a correlation between a first statement and a previous statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query."* The preceding text excerpt clearly indicates a correlation is found between a first statement/present query and a previous query.) (Column 3, Lines 6-16), wherein the previous statement is stored in a history of a plurality of statements (i.e. *"In accordance with one aspect of the invention, the correlation data is stored in a correlation data structure (table, database, etc.) which is used to look up related terms in response to query submissions. The data structure is preferably generated using an off-line process which parses a query log file, but could alternatively be generated and updated in real-time as queries are received from users."* The preceding text excerpt clearly indicates that the previous statement is stored in a query log/history which is parsed to create correlation data.) (Column 2, Lines 47-53), and wherein the finding the correlation further comprises finding a host

variable in a history that matches the host variable in the first statement (i.e. *"To generate a set of related terms for refining a submitted query (the "present query"), the related terms list for each term in the present query is initially obtained from the correlation data structure. If this step produces multiple related terms lists (as in the case of a multiple-term query), the related terms lists are preferably combined by taking the intersection between these lists (i.e., deleting the terms that are not common to all lists). The related terms which remain are terms which have previously appeared, in at least one successful query submission, in combination with every term of the present query."* The preceding text excerpt clearly indicates that because the same database is being searched in relation to the same information (e.g. identification of keyword terms) that the host variable will remain the same for the first statement/query and the stored statements/queries in the history/log.) (Column 3, Lines 6-16), predicting a second statement based on the previous statement (i.e. *"Thus, assuming items have not been deleted from the database being searched, any of these related terms can be individually added to the present query while guaranteeing that the modified query will not produce a NULL query result."* The preceding text excerpt clearly indicates that a second query/statement is predicted (e.g. a modified version of the first query which it is predicted will be useful to the user is determined and presented).) (Column 3, Lines 16-20), executing the first statement against the database (i.e. Figure 9 clearly indicates that the first statement is executed against the database and results from the first statement are returned (e.g. Top Matches for This Search).) (Figure 9), and retrieving at least one page from a database based on the second statement (i.e. *"When the user clicks on one of these links, the corresponding modified query is submitted to the search engine. The method thus enables the user to select and submit the modified query with a single action (e.g., one click of a mouse). As an inherent benefit of the above-described method of generating the related terms, each such link produces as least one 'hit.'"* The preceding text excerpt clearly indicates that the second statement/modified query is submitted to the search engine and will return at least one page/hit from the database.) (Column 14, Lines 6-12).

As per Claim 20, Bowman teaches finding the previous statement, wherein the previous statement is associated with a same job as the first statement (i.e. *"The present*

invention addresses these and other problems by providing a search refinement system and method for generating and displaying related query terms ("related terms"). In accordance with the invention, the related terms are generating using query term correlation data that is based on historical query submissions to the search engine. The query term correlation data ("correlation data") is preferably based at least upon the frequencies with which specific terms have historically been submitted together within the same query." The preceding text excerpt clearly indicates that the previous statement and first statement are both associated to finding data in the database dealing with the same subject/job.) (Column 2, Lines 28-27).

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Hicks whose telephone number is (571) 272-2670. The examiner can normally be reached on Monday - Friday 8:30a - 5:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J Hicks
Art Unit 2165

Phone: (571) 272-2670
Fax: (571) 273-2670